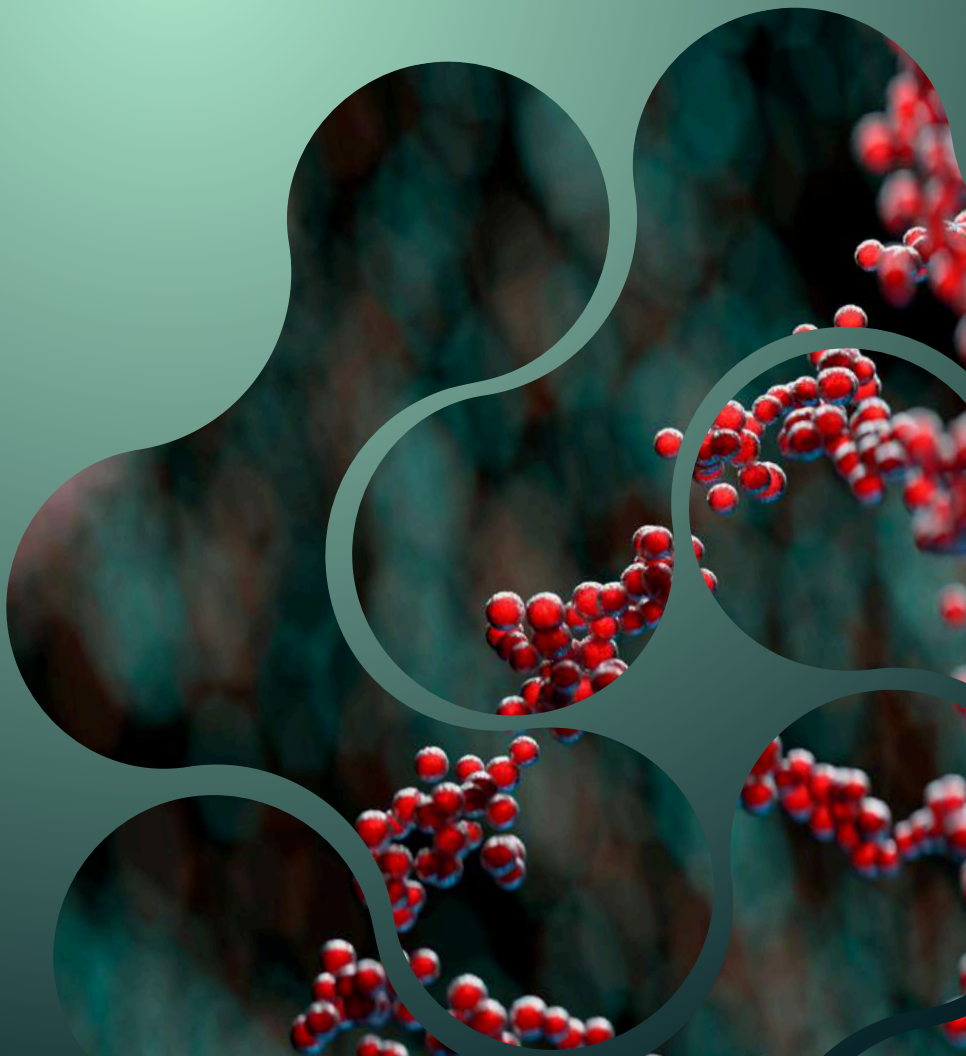
OncoDynamics

Test Catalogue



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1.8 Test BRCA Extended

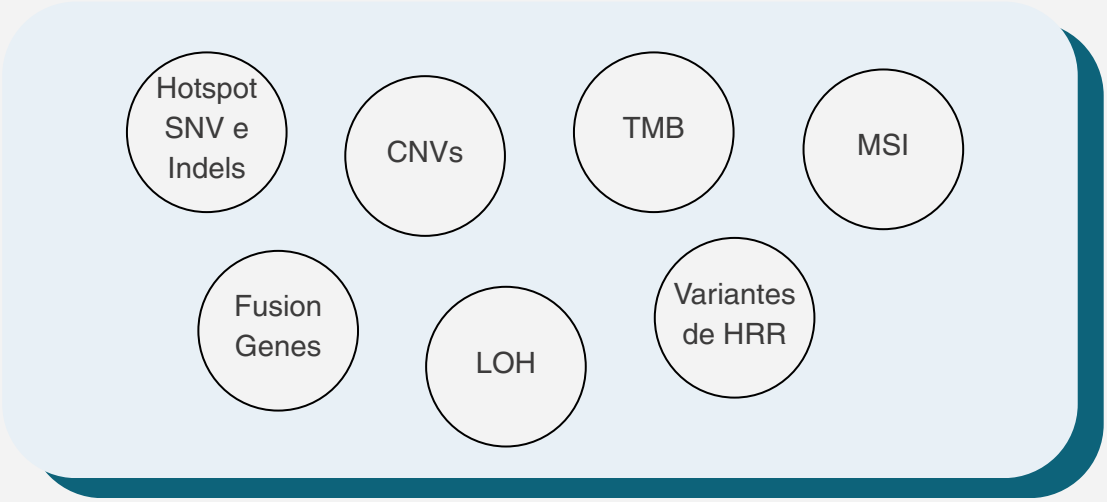
1.9 Test BRCA

+ 500 GENES

1.1 OncoProfile Advanced 500+

From a single sample, in a single test, we can offer a truly comprehensive genomic profile based on **DNA and RNA analysis of >500 genes, using next-generation sequencing (NGS).**

This panel detects:



TMB: tumor mutational burden
MSI: microsatellite instability
HRR: homologous recombination repair
LOH: genomic instability with loss of heterozygosity

+ 500 GENES

1.1 OncoProfile Advanced 500+

Hotspot Genes (n=57)		
ACVR1	IRF4	TRRAP
ATP1A1	IRS4	TSHR
BCR	KLF4	WAS
BMP5	KNSTRN	
BTK	MAP2K2	
CACNA1D	MED12	
CD79B	MYOD1	
CSF1R	NSD2	
CTNNB1	NT5C2	
CUL1	NTRK2	
CYSLTR2	NUP93	
DGCR8	PAX5	
DROSHA	PIK3CD	
E2F1	PIK3CG	
EPAS1	PTPRD	
FGF7	RGS7	
FOXL2	RHOA	
FOXO1	RPL10	
GLI1	SIX1	
GNA11	SIX2	
GNAQ	SNCAIP	
HIF1A	SQSTM1	
HIST1H2BD	SOX2	
HIST1H3B	SRSF2	
HRAS	STAT5B	
IDH1	TAF1	
IL6ST	TGFBR1	

CNV Gain Genes (n=19)
ABCB1
CTNND2
DDR1
EMSY
FGF19
FGF23
FGF3
FGF4
FGF9
FYN
GLI3
IGF1R
MCL1
MDM2
MYCL
RPS6KB1
RPTOR
YAP1
YES1

Copy Number Variation and Hotspot Genes (n=107)			
ABL1	ERBB2	MAX	PTPN11
ABL2	ERBB3	MDM4	PXDNL
AKT1	ERBB4	MECOM	RAC1
AKT2	ESR1	MEF2B	RAF1
AKT3	EZH2	MET RAR	RET
ALK	FAM135B	MITF	RHEB
AR	FGFR1	MPL	RICTOR
ARAF	FGFR2	MTOR	RIT1
AURKA	FGFR3	MYC	ROS1
AURKC	FGFR4	MYCN	SETBP1
AXL	FLT3	MYD88	SF3B1
BCL2	FLT4	NFE2L2	SLCO1B3
BCL2L12	FOXA1	NRAS	SMC1A
BCL6	GATA2	NTRK1	SMO
BRAF	GNAS	NTRK3	SPOP
CARD11	H3F3A	PCBP1	SRC
CBL	H3F3B	PDGFRA	STAT3
CCND1	IDH2	PDGFRB	STAT6
CCND2	IKBKB	PIK3C2B	TERT
CCND3	IL7R	PIK3CA	TOP1
CCNE1	KDR	PIK3CB	TPMT
CDK4	KIT	PIK3R2	U2AF1
CDK6	KLF5	PIM1	USP8
CHD4	KRAS	PLCG1	XPO1
DDR2	MAGOH	PPP2R1A	ZNF217
EGFR	MAP2K1	PPP6C	ZNF429
EIF1AX	MAPK1	PRKACA	

Gene Fusions (n=51) (Inter- and Intra-genic)	
AKT2	NF1
ALK	NOTCH1
AR	NOTCH4
AXL	NRG1
BRAF	NTRK1
BRCA1	NTRK2
BRCA2	NTRK3
CDKN2A	NUTM1
EGFR	PDGFRA
ERBB2	PDGFRB
ERBB4	PIK3CA
ERG	PPARG
ESR1	PRKACA
ETV1	PRKACB
ETV4	PTEN
ETV5	RAD51B
FGFR1	RAF1
FGFR2	RB1
FGFR3	RELA
FGR	RET
FLT3	ROS1
JAK2	RSPO2
KRAS	RSPO3
MDM4	TERT
MET	
MYB	
MYBL1	

CNV Loss and CDS (n=206)						
ABRAXAS1	CD274	DSC3	HLA-A	MTAP	PRDM1	SMAD4
ACVR1B	CD276	ELF3	HLA-B	MUTYH	PRDM9	SMARCA4
ACVR2A	CDC73	ENO1	HNF1A	NBN	PRKAR1A	SMARCB1
ADAMTS12	CDH1	EP300	INPP4B	NCOR1	PTCH1	SOX9
ADAMTS2	CDH10	EPCAM	JAK1	NF1	PTEN	SPEN
AMER1	CDK12	EPHA2	JAK2	NF2	PTPRT	STAG2
APC	CDKN1A	ERAP1	JAK3	NOTCH1	RAD50	STK11
ARHGAP35	CDKN1B	ERAP2	KDM5C	NOTCH2	RAD51	SUFU
ARID1A	CDKN2A	ERCC2	KDM6A	NOTCH3	RAD51B	TAP1
ARID1B	CDKN2B	ERCC4	KEAP1	NOTCH4	RAD51C	TAP2
ARID2	CDKN2C	ERRFI1	KMT2A	PALB2	RAD51D	TBX3
ARID5B	CHEK1	ETV6	KMT2B	PARP1	RAD52	TCF7L2
ASXL1	CHEK2	FANCA	KMT2C	PARP2	RAD54L	TET2
ASXL2	CIC	FANCC	KMT2D	PARP3	RASA1	TGFBR2
ATM	CREBBP	FANCD2	LARP4B	PARP4	RASA2	TNFAIP3
ATR	CSMD3	FANCE	LATS1	PBRM1	RB1	TNFRSF14
ATRX	CTCF	FANCF	LATS2	PDCD1	RBM10	TP53
AXIN1	CTLA4	FANCG	MAP2K4	PDCD1LG2	RECQL4	TP63
AXIN2	CUL3	FANCI	MAP2K7	PDIA3	RNASEH2A	TPP2
B2M	CUL4A	FANCL	MAP3K1	PGD	RNASEH2B	TSC1
BAP1	CUL4B	FANCM	MAP3K4	PHF6	RNF43	TSC2
BARD1	CYLD	FAT1	MAPK8	PIK3R1	RPA1	USP9X
BCOR	CYP2C9	FBXW7	MEN1	PMS1	RUNX1	VHL
BLM	DAXX	FUBP1	MGA	PMS2	SDHA	WT1
BMPR2	DDX3X	GATA3	MLH1	POLD1	SDHB	XRCC2
BRCA1	DICER1	GNA13	MLH3	POLE	SDHD	XRCC3
BRCA2	DNMT3A	GPS2	MRE11	POT1	SETD2	ZFHX3
BRIP1	DOCK3	HDAC2	MSH2	PPM1D	SLX4	ZMYM3
CASP8	DPYD	HDAC9	MSH3	PPP2R2A	SMAD2	ZRSR2
CBFB	DSC1		MSH6			

CDS Only Genes (n=21)
CALR
CIITA
CYP2D6
ERCC5 FAS
ID3
KLHL13
MTUS2
PSMB10
PSMB8
PSMB9
RNASEH2C
RPL22
RPL5
RUNX1T1
SDHC
SOCS1
STAT1
TMEM132D
UGT1A1
ZBTB20

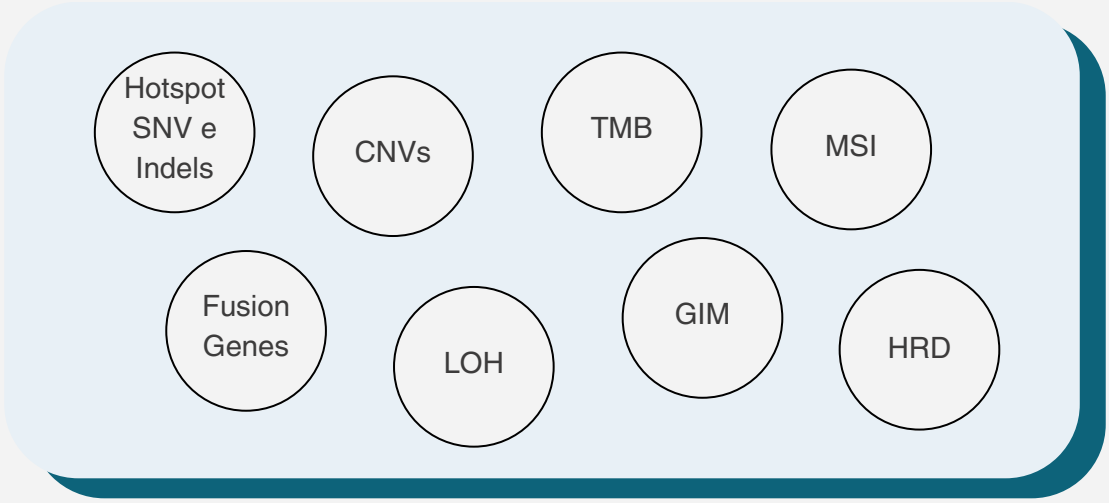
TMB only genes (n=86)		
A1CF	LRRC7	ORC4
ACSM2B	MARCO	PAK5
ADAM18	NLRC5	PCDH17
ANO4	NOL4	PDE1A
ARMC4	NRXN1	PDE1C
BRINP3	NYAP2	PLXDC2
C6	OR10G8	POM121L12
C8A	OR2G6	PPFIA2
C8B	OR2L13	RBP3
CANX	OR2L2	REG1A
CASR	OR2L8	REG1B
CD163	OR2M3	REG3A
CNTN6	OR2T3	REG3G
CNTNAP4	OR2T33	RPTN
CNTNAP5	OR2T4	RUNDC3B
COL11A1	OR2W3	SH3RF2
DCAF4L2	OR4A15	SLC15A2
DCDC1	OR4C15	SLC8A1
GALNT17	OR4C6	SYT10
GPR158	OR4M1	SYT16
GRID2	OR4M2	TAPBP
HCN1	OR5D18	TPTE
HLA-C	OR5F1	TRHDE
KCND2	OR5L1	TRIM48
KCNH7	OR5L2	TRIM51
KEL	OR6F1	ZIM3
KIR3DL1	OR8H2	ZNF479
KRTAP2-1	OR8I2	ZNF536
KRTAP6-2	OR8U1	

+ 500 GENES + 46 GENES

1.2 OncoProfile Advanced 500+46

OncoProfile Advanced 500+46 has the same basis as OncoProfile Advanced 500+ with the addition of 46 genes involved in the HRR pathway, useful for assessing HRD and selecting patients who are candidates for **PARP** inhibitors.

This panel detects:



TMB: tumor mutational burden
MSI: microsatellite instability
HRR: homologous recombination repair
LOH: genomic instability with loss of heterozygosity
GIM: Genomic Instability Metric
HRD: Homologous Recombination

46 GENES

1.2 OncoProfile Advanced 500+ 46

CDS Genes (n=46)	
ABRAXAS1	*POLD1*
ATM	*POLE*
ATR	*PPP2R2A*
BAP1	*PTEN*
BARD1	*RAD50*
BLM	*RAD51*
BRCA1	*RAD51B*
BRCA2	*RAD51C*
BRIP1	*RAD51D*
CDK12	*RAD54L*
CHEK1	*RNASEH2A*
CHEK2	*RNASEH2B*
FANCA	*RNASEH2C*
FANCC	*RPA1*
FANCD2	*SLX4*
FANCE	*TP53*
FANCF	*XRCC2*
FANCG	*XRCC3*
FANCI	
FANCL	
FANCM	
MRE11	
NBN	
PALB2	
PARP1	
PARP2	
PARP3	

CNV genes (n=45)	
ABRAXAS1	*POLD1*
ATM	*POLE*
ATR	*PPP2R2A*
BAP1	*PTEN*
BARD1	*RAD50*
BLM	*RAD51*
BRCA1	*RAD51B*
BRCA2	*RAD51C*
BRIP1	*RAD51D*
CDK12	*RAD54L*
CHEK1	*RNASEH2A*
CHEK2	*RNASEH2B*
FANCA	*RPA1*
FANCC	*SLX4*
FANCD2	*TP53*
FANCE	*XRCC2*
FANCF	*XRCC3*
FANCG	
FANCI	
FANCL	
FANCM	
MRE11	
NBN	
PALB2	
PARP1	
PARP2	
PARP3	

+ 500 GENES

1.2 OncoProfile Advanced 500+46

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CUL1	NTRK2	
CYSLTR2	NUP93	
DGCR8	PAX5	
DROSHA	PIK3CD	
E2F1	PIK3CG	
EPAS1	PTPRD	
FGF7	RGS7	
FOXL2	RHOA	
FOXO1	RPL10	
GLI1	SIX1	
GNA11	SIX2	
GNAQ	SNCAIP	
HIF1A	SQSTM1	
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HRAS	STAT5B	
IDH1	TAF1	
IL6ST	TGFBR1	

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FGF23
FGF3
FGF4
FGF9
FYN
GLI3
IGF1R
MCL1
MDM2
MYCL
RPS6KB1
RPTOR
YAP1
YES1

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ARAF	FGFR2	MTOR	RIT1
AURKA	FGFR3	MYC	ROS1
AURKC	FGFR4	MYCN	SETBP1
AXL	FLT3	MYD88	SF3B1
BCL2	FLT4	NFE2L2	SLCO1B3
BCL2L12	FOXA1	NRAS	SMC1A
BCL6	GATA2	NTRK1	SMO
BRAF	GNAS	NTRK3	SPOP
CARD11	H3F3A	PCBP1	SRC
CBL	H3F3B	PDGFRA	STAT3
CCND1	IDH2	PDGFRB	STAT6
CCND2	IKBKB	PIK3C2B	TERT
CCND3	IL7R	PIK3CA	TOP1
CCNE1	KDR	PIK3CB	TPMT
CDK4	KIT	PIK3R2	U2AF1
CDK6	KLF5	PIM1	USP8
CHD4	KRAS	PLCG1	XPO1
DDR2	MAGOH	PPP2R1A	ZNF217
EGFR	MAP2K1	PPP6C	ZNF429
EIF1AX	MAPK1	PRKACA	

Gene Fusions (n=51) (Inter- and Intra-genic)	
AKT2	NF1
ALK	NOTCH1
AR	NOTCH4
AXL	NRG1
BRAF	NTRK1
BRCA1	NTRK2
BRCA2	NTRK3
CDKN2A	NUTM1
EGFR	PDGFRA
ERBB2	PDGFRB
ERBB4	PIK3CA
ERG	PPARG
ESR1	PRKACA
ETV1	PRKACB
ETV4	PTEN
ETV5	RAD51B
FGFR1	RAF1
FGFR2	RB1
FGFR3	RELA
FGR	RET
FLT3	ROS1
JAK2	RSPO2
KRAS	RSPO3
MDM4	TERT
MET	
MYB	
MYBL1	

CNV Loss and CDS (n=206)						
ABRAXAS1	CD274	DSC3	HLA-A	MTAP	PRDM1	SMAD4
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ACVR2A	CDC73	ENO1	HNF1A	NBN	PRKAR1A	SMARCB1
ADAMTS12	CDH1	EP300	INPP4B	NCOR1	PTCH1	SOX9
ADAMTS2	CDH10	EPCAM	JAK1	NF1	PTEN	SPEN
AMER1	CDK12	EPHA2	JAK2	NF2	PTPRT	STAG2
APC	CDKN1A	ERAP1	JAK3	NOTCH1	RAD50	STK11
ARHGAP35	CDKN1B	ERAP2	KDM5C	NOTCH2	RAD51	SUFU
ARID1A	CDKN2A	ERCC2	KDM6A	NOTCH3	RAD51B	TAP1
ARID1B	CDKN2B	ERCC4	KEAP1	NOTCH4	RAD51C	TAP2
ARID2	CDKN2C	ERRFI1	KMT2A	PALB2	RAD51D	TBX3
ARID5B	CHEK1	ETV6	KMT2B	PARP1	RAD52	TCF7L2
ASXL1	CHEK2	FANCA	KMT2C	PARP2	RAD54L	TET2
ASXL2	CIC	FANCC	KMT2D	PARP3	RASA1	TGFBR2
ATM	CREBBP	FANCD2	LARP4B	PARP4	RASA2	TNFAIP3
ATR	CSMD3	FANCE	LATS1	PBRM1	RB1	TNFRSF14
ATRX	CTCF	FANCF	LATS2	PDCD1	RBM10	TP53
AXIN1	CTLA4	FANCG	MAP2K4	PDCD1LG2	RECQL4	TP63
AXIN2	CUL3	FANCI	MAP2K7	PDIA3	RNASEH2A	TPP2
B2M	CUL4A	FANCL	MAP3K1	PGD	RNASEH2B	TSC1
BAP1	CUL4B	FANCM	MAP3K4	PHF6	RNF43	TSC2
BARD1	CYLD	FAT1	MAPK8	PIK3R1	RPA1	USP9X
BCOR	CYP2C9	FBXW7	MEN1	PMS1	RUNX1	VHL
BLM	DAXX	FUBP1	MGA	PMS2	SDHA	WT1
BMPR2	DDX3X	GATA3	MLH1	POLD1	SDHB	XRCC2
BRCA1	DICER1	GNA13	MLH3	POLE	SDHD	XRCC3
BRCA2	DNMT3A	GPS2	MRE11	POT1	SETD2	ZFHX3
BRIP1	DOCK3	HDAC2	MSH2	PPM1D	SLX4	ZMYM3
CASP8	DPYD	HDAC9	MSH3	PPP2R2A	SMAD2	ZRSR2
CBFB	DSC1		MSH6			

CDS Only Genes (n=21)
CALR
CIITA
CYP2D6
ERCC5 FAS
ID3
KLHL13
MTUS2
PSMB10
PSMB8
PSMB9
RNASEH2C
RPL22
RPL5
RUNX1T1
SDHC
SOCS1
STAT1
TMEM132D
UGT1A1
ZBTB20

TMB only genes (n=86)		
A1CF	LRRC7	ORC4
ACSM2B	MARCO	PAK5
ADAM18	NLRC5	PCDH17
ANO4	NOL4	PDE1A
ARMC4	NRXN1	PDE1C
BRINP3	NYAP2	PLXDC2
C6	OR10G8	POM121L12
C8A	OR2G6	PPFIA2
C8B	OR2L13	RBP3
CANX	OR2L2	REG1A
CASR	OR2L8	REG1B
CD163	OR2M3	REG3A
CNTN6	OR2T3	REG3G
CNTNAP4	OR2T33	RPTN
CNTNAP5	OR2T4	RUNDC3B
COL11A1	OR2W3	SH3RF2
DCAF4L2	OR4A15	SLC15A2
DCDC1	OR4C15	SLC8A1
GALNT17	OR4C6	SYT10
GPR158	OR4M1	SYT16
GRID2	OR4M2	TAPBP
HCN1	OR5D18	TPTE
HLA-C	OR5F1	TRHDE
KCND2	OR5L1	TRIM48
KCNH7	OR5L2	TRIM51
KEL	OR6F1	ZIM3
KIR3DL1	OR8H2	ZNF479
KRTAP2-1	OR8I2	ZNF536
KRTAP6-2	OR8U1	

161 GENES

1.3 OncoProfile 161

Capable of identifying pathogenic variants by evaluating 161 genes proven to be useful in cancer.

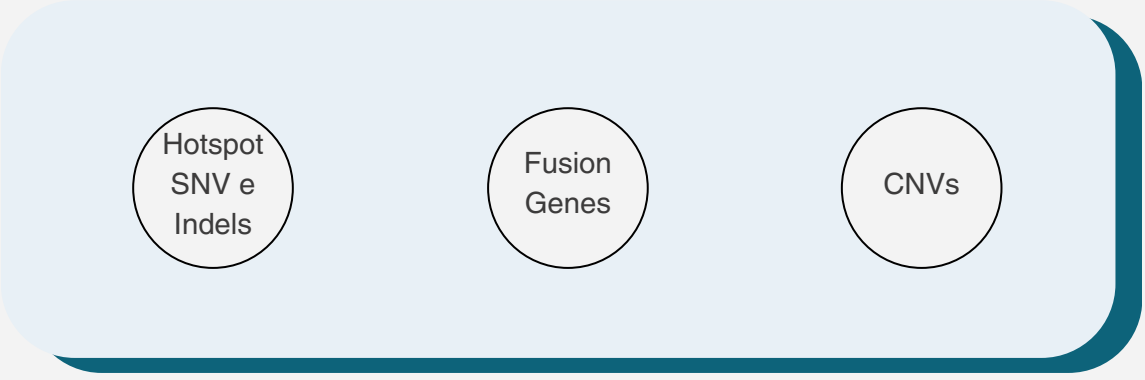
This test includes:

- Extensive coverage of kinase domains in tyrosine kinase receptors, which increases the chances of detecting relevant functional mutations in addition to prevalent pathological variants that are informative for treatment decisions **(ALK, BRAF, DDR2, EGFR, KIT, ROS1, NTKR, MET, PDGFRA, RET, ERBB2, PIK3, IDH1).**

- Broad coverage of genes related to DNA repair pathways (31 genes).

- Broad coverage of genes such as **MAPK, PIK3**, as well as genes related to the cell cycle.

This panel detects:



161 GENES

1.3 OncoProfile 161

Hotspot genes				Full-length genes		
AKT1	*ESR1*	*KIT*	*PDGFRB*	*ARID1A*	*FBXW7*	*PTEN*
AKT2	*EZH2*	*KNSTRN*	*PIK3CB*	*ATM*	*MLH1*	*RAD50*
AKT3	*FGFR1*	*KRAS*	*PIK3CA*	*ATR*	*MRE11*	*RAD51*
ALK	*FGFR2*	*MAGOH*	*PPP2R1A*	*ATRX*	*MSH6*	*RAD51B*
AR	*FGFR3*	*MAP2K1*	*PTPN11*	*BAP1*	*MSH2*	*RAD51C*
ARAF	*FGFR4*	*MAP2K2*	*RAC1*	*BRCA1*	*NBN*	*RAD51D*
AXL	*FLT3*	*MAP2K4*	*RAF1*	*BRCA2*	*NF1*	*RNF43*
BRAF	*FOXL2*	*MAPK1*	*RET*	*CDK12*	*NF2*	*RB1*
BTK	*GATA2*	*MAX*	*RHEB*	*CDKN1B*	*NOTCH1*	*SETD2*
CBL	*GNA11*	*MDM4*	*RHOA*	*CDKN2A*	*NOTCH2*	*SLX4*
CCND1	*GNAQ*	*MED12*	*ROS1*	*CDKN2B*	*NOTCH3*	*SMARCA4*
CDK4	*GNAS*	*MET*	*SF3B1*	*CHEK1*	*PALB2*	*SMARCB1*
CDK6	*H3F3A*	*MTOR*	*SMAD4*	*CREBBP*	*PIK3R1*	*STK11*
CHEK2	*HIST1H3B*	*MYC*	*SMO*	*FANCA*	*PMS2*	*TP53*
CSF1R	*HNF1A*	*MYCN*	*SPOP*	*FANCD2*	*POLE*	*TSC1*
CTNNB1	*HRAS*	*MYD88*	*SRC*	*FANCI*	*PTCH1*	*TSC2*
DDR2	*IDH1*	*NFE2L2*	*STAT3*			
EGFR	*IDH2*	*NRAS*	*TERT*			
ERBB2	*JAK1*	*NTRK1*	*TOP1*			
ERBB3	*JAK2*	*NTRK2*	*U2AF1*			
ERBB4	*JAK3*	*NTRK3*	*XPO1*			
ERCC2	*KDR*	*PDGFRA*				

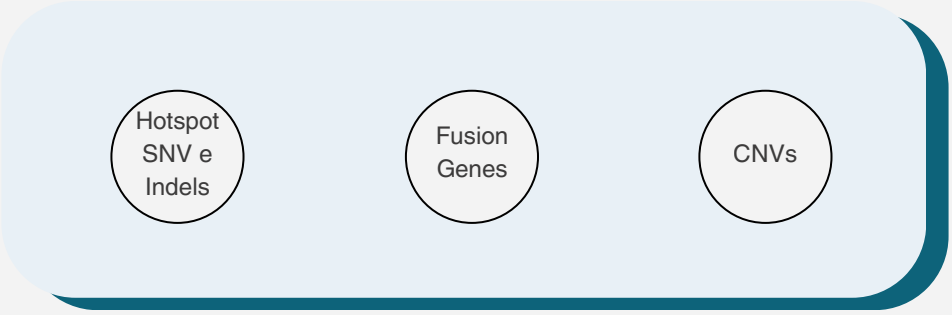
Copy number genes		Gene Fusions (n=51) (inter-and intragenic)		
AKT1	*FGFR4*	*AKT2*	*FGFR2*	*NUTM1*
AKT2	*FLT3*	*ALK*	*FGFR3*	*PDGFRA*
AKT3	*IGF1R*	*AR*	*FGR*	*PDGFRB*
ALK	*KIT*	*AXL*	*FLT3*	*PIK3CA*
AXL	*KRAS*	*BRCA1*	*JAK2*	*PRKACA*
AR	*MDM2*	*BRCA2*	*KRAS*	*PRKACB*
BRAF	*MDM4*	*BRAF*	*MDM4*	*PTEN*
CCND1	*MET*	*CDKN2A*	*MET*	*PPARG*
CCND2	*MYC*	*EGFR*	*MYB*	*RAD51B*
CCND3	*MYCL*	*ERBB2*	*MYBL1*	*RAF1*
CCNE1	*MYCN*	*ERBB4*	*NF1*	*RB1*
CDK2	*NTRK1*	*ERG*	*NOTCH1*	*RELA*
CDK4	*NTRK2*	*ESR1*	*NOTCH4*	*RET*
CDK6	*NTRK3*	*ETV1*	*NRG1*	*ROS1*
EGFR	*PDGFRA*	*ETV4*	*NTRK1*	*RSPO2*
ERBB2	*PDGFRB*	*ETV5*	*NTRK2*	*RSPO3*
ESR1	*PIK3CB*	*FGFR1*	*NTRK3*	*TERT*
FGF19	*PIK3CA*			
FGF3	*PPARG*			
FGFR1	*RICTOR*			
FGFR2	*TERT*			
FGFR3				

161 GENES

1.4 OncoProfile 52

- Sensitive detection of variants in 52 genes with high relevance in multiple types of cancer.
- Genes carefully selected for their usefulness in the management and treatment of oncological processes.
- Allows simultaneous DNA and RNA results to be obtained.
- Compatible with samples of as little as 10 ng of genetic material from paraffin-embedded tumor tissue.

This panel detects:

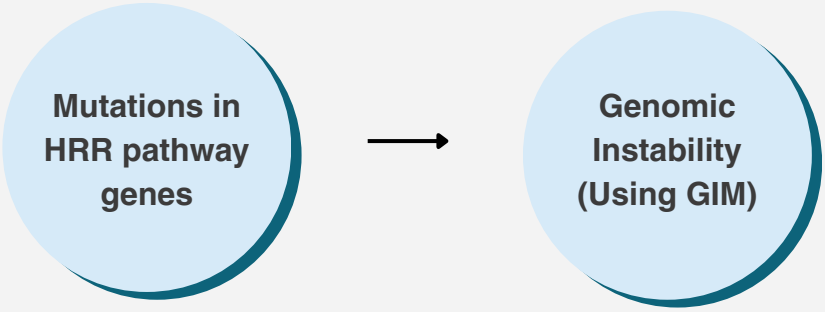


Hotspot Genes (n=35)			Copy Number genes (n=19)		Fusion Genes (n=23)	
AKT1	*HRAS*	*RET*	*ALK*	*MYCN*	*ABL1*	*NTRK2*
ALK	*IDH1*	*ROS1*	*AR*	*PDGFRA*	*AKT3*	*NTRK3*
AR	*IDH2*	*SMO*	*BRAF*	*PIK3CA*	*ALK*	*PDGFRA*
BRAF	*JAK1*		*CCND1*		*AXL*	*PPARG*
CDK4	*JAK2*		*CDK4*		*BRAF*	*RAF1*
CTNNB1	*JAK3*		*CDK6*		*EGFR*	*RET*
DDR2	*KIT*		*EGFR*		*ERBB2*	*ROS1*
EGFR	*KRAS*		*ERBB2*		*ERG*	
ERBB2	*MAP2K1*		*FGFR1*		*ETV1*	
ERBB3	*MAP2K2*		*FGFR2*		*ETV4*	
ERBB4	*MET*		*FGFR3*		*ETV5*	
ESR1	*MTOR*		*FGFR4*		*FGFR1*	
FGFR2	*NRAS*		*KIT*		*FGFR2*	
FGFR3	*PDGFRA*		*KRAS*		*FGFR3*	
GNA11	*PIK3CA*		*MET*		*MET*	
GNAQ	*RAF1*		*MYC*		*NTRK1*	

46 GENES

1.5 OncoProfile OVARY 46

This test analyzes:



This panel covers 46 genes involved in the HRR pathway:

CDS Genes (n=46)	
ABRAXAS1	*POLD1*
ATM	*POLE*
ATR	*PPP2R2A*
BAP1	*PTEN*
BARD1	*RAD50*
BLM	*RAD51*
BRCA1	*RAD51B*
BRCA2	*RAD51C*
BRIP1	*RAD51D*
CDK12	*RAD54L*
CHEK1	*RNASEH2A*
CHEK2	*RNASEH2B*
FANCA	*RNASEH2C*
FANCC	*RPA1*
FANCD2	*SLX4*
FANCE	*TP53*
FANCF	*XRCC2*
FANCG	*XRCC3*
FANCI	
FANCL	
FANCM	
MRE11	
NBN	
PALB2	
PARP1	
PARP2	
PARP3	

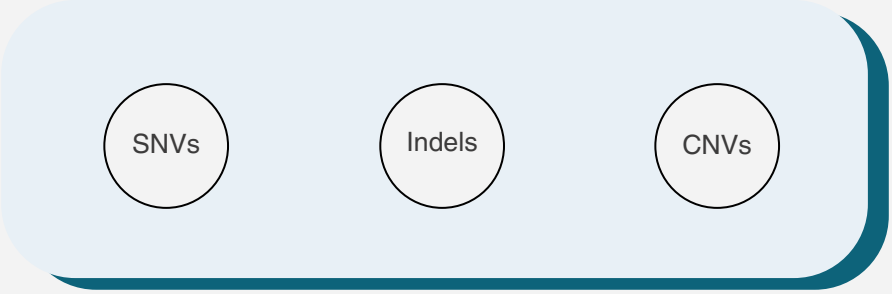
CNV genes (n=45)	
ABRAXAS1	*POLD1*
ATM	*POLE*
ATR	*PPP2R2A*
BAP1	*PTEN*
BARD1	*RAD50*
BLM	*RAD51*
BRCA1	*RAD51B*
BRCA2	*RAD51C*
BRIP1	*RAD51D*
CDK12	*RAD54L*
CHEK1	*RNASEH2A*
CHEK2	*RNASEH2B*
FANCA	*RPA1*
FANCC	*SLX4*
FANCD2	*TP53*
FANCE	*XRCC2*
FANCF	*XRCC3*
FANCG	
FANCI	
FANCL	
FANCM	
MRE11	
NBN	
PALB2	
PARP1	
PARP2	
PARP3	

19 GENES

1.6 OncoProfile COLORRECTAL 19

It includes 19 genes, including the **MMR** (mismatch repair pathway) genes **MLH1, MSH2, MSH6, PMS2**, and other genes of recognized clinical utility in colorectal cancer such as **APC, MUTYH, KRAS, and NRAS.**

This panel detects:



Genes	MLH1, MSH2, MSH6, PMS2, APC, AXIN2, CDH1, CHEK2, EPCAM, MSH3, MUTYH, POLD1, POLE, PTEN, SMAD4, TP53, KRAS, NRAS, BRAF
Test value	Genetic testing of solid tumors. Confirmation or exclusion of Lynch syndrome. Cancer treatment management. Risk assessment for hereditary cancer syndromes associated with these genes: Lynch syndrome, familial adenomatous polyposis (FAP), and colorectal polyposis.

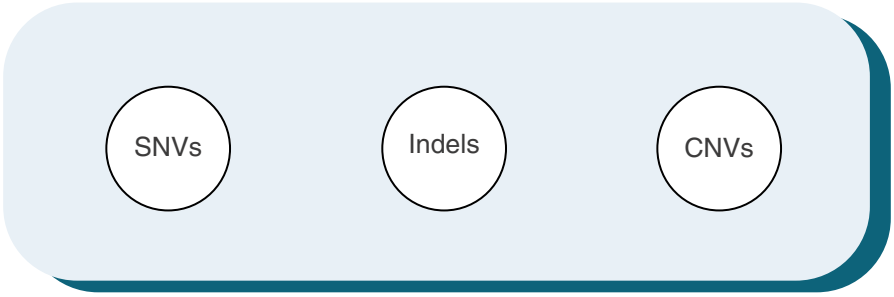
12 GENES

1.7 OncoProfile LUNG 12

AUsing paraffin-embedded tumor tissue samples (FFPE) and massive sequencing techniques, our test is capable of evaluating 12 genes with proven clinical utility in genetic material extracted from this type of sample.

This test provides results related to tumor heterogeneity and the detection of treatment-resistant clones.

This panel detects:



Genes		Fusion Genes
ALK	*NRAS*	*ALK*
BRAF	*PIK3CA*	*ROS1*
EGFR	*RET*	*RET*
ERBB2	*ROS1*	
KRAS	*TP53*	
MAP2K1		
MET		

- 12 genes
- Librería única a partir de ADN y ARN
- 58 amplicons
- **>169 hotspots e Indels**

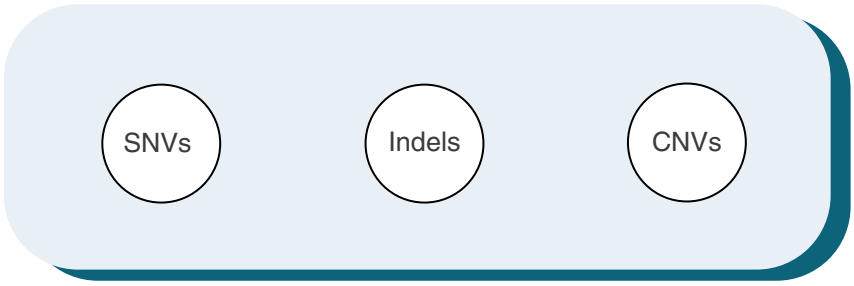
21 GENES

1.8 Test BRCA Extended

It analyzes 21 genes that are fundamental in the genetic study of **breast, ovarian, and prostate cancer.**

It provides information on pathogenic variants in the **BRCA1 and BRCA2** genes, along with all the genes recommended by the **SEOM** (Spanish Society of Medical Oncology), and other genes related to homologous DNA recombination with described clinical utility.

This panel detects:



Genes	BRCA1, BRCA2, ATM, BARD1, BRIP1, CDH1, CDK12, CHEK2, FANCD2, MRE11, MLH1, MSH2, NBN, NF1, PALB2, PTEN, RAD50, RAD51C, RAD51D, TP53, PMS2
Test Value	Cancer management (possibility of treatment with PARP inhibitors). Risk assessment for hereditary breast, ovarian, and prostate cancer. It is mainly used for the genetic study of breast and ovarian cancer, but it also has informative value in prostate cancer.

2 GENES

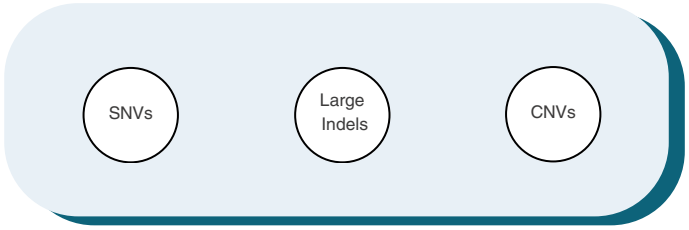
1.9 Test BRCA

The percentage of prostate cancers in which mutations in the **BRCA** genes are found reaches up to 40%.
In the general population, it is estimated that 1.3% of women will develop ovarian cancer during their lifetime. Mutations in **BRCA1 and BRCA2** are thought to cause around **15-20% of ovarian cancers in general.**

Mutations in **BRCA1 and BRCA2 are thought to cause about 16% of hereditary breast cancers,** which in turn account for between 5% and 10% of all breast cancers in women.

BRCA1 and BRCA2 are the genes most frequently involved and carry a considerable lifetime risk of breast cancer **(72% for BRCA1 and 69% for BRCA2, up to age 80).**

This panel detects:



Genes	BRCA1 y BRCA2
Test Value	It is mainly used for the genetic study of breast, ovarian, and prostate cancer, but it also provides valuable information in pancreatic cancer. Assessment of the risk of cancer associated with mutations in the BRCA1 and BRCA2 genes. Management of cancer treatment and decisions regarding treatment with PARP inhibitors.

2. LIQUID BIOPSY

52 GENES

2.1 OncoProfile Liquid GENERAL 52

This test provides relevant results in patients regarding: tumor heterogeneity, detection of treatment-resistant clones, and detection of recurrence earlier than imaging tests.

The general test is capable of evaluating 52 genes with proven clinical utility in cell-free tumor DNA (ctDNA), including key targets recognized by experts (SNVs, InDels, CNVs, and gene fusions).

Hotspot Genes				CNVs	Fusion Genes
AKT1	*ERBB3*	*KIT*	*SF3B1*	*CCND1*	*ALK*
ALK	*ERG*	*KRAS*	*SMAD4*	*CCND2*	*BRAF*
APC	*ESR1*	*MAP2K1*	*SMO*	*CCND3*	*ERG*
AR	*ETV1*	*MAP2K2*	*TP53*	*CDK4*	*ETV1*
ARAF	*FBXW7*	*MET*		*CDK6*	*FGFR1*
BRAF	*FGFR1*	*MTOR*		*EGFR*	*FGFR2*
CCND1	*FGFR2*	*MYC*		*ERBB2*	*FGFR3*
CCND2	*FGFR3*	*NRAS*		*FGFR1*	*MET*
CCND3	*FGFR4*	*NTRK1*		*FGFR2*	*NTRK1*
CDK4	*FLT3*	*NTRK3*		*FGFR3*	*NTRK3*
CDK6	*GNA11*	*PDGFRA*		*MET*	*RET*
CHEK2	*GNAQ*	*PIK3CA*		*MYC*	*ROS1*
CTNNB1	*GNAS*	*PTEN*			
DDR2	*HRAS*	*RAF1*			
EGFR	*IDH1*	*RET*			
ERBB2	*IDH2*	*ROS1*			

- 52 genes
- >900 Hotspots e Indels
- 12 CNVs
- Librería única a partir de ADN y ARN
- Cobertura extendida de TP53
- MET exon 14 skipping
- 272 amplicons
- 96 fusions

14 GENES

2.2 Oncoprofile Liquid COLORRECTAL 14

Our test provides relevant results for patients in terms of tumor heterogeneity, detection of treatment-resistant clones, and detection of recurrence earlier than imaging tests.

The test includes 14 genes with proven clinical utility in cell-free tumor DNA (ctDNA) present in blood plasma.

Genes	
AKT1	*GNAS*
APC	*KRAS*
BRAF	*MAP2K1*
CTNNB1	*NRAS*
EGFR	*PIK3CA*
ERBB2	*SMAD4*
FBXW7	*TP53*

- 14 genes
- 49 amplicons
- 236 Hotspots e Indels

12 GENES

2.3 OncoProfile Liquid MAMA 12

The test evaluates 12 genes with proven clinical utility in cell-free tumor DNA (ctDNA) present in blood plasma.

Our test provides patients with relevant results regarding tumor heterogeneity, detection of treatment-resistant clones, and detection of recurrence earlier than imaging tests.

Genes	
AKT1	*FBXW7*
CCND1	*FGFR1*
EGFR	*KRAS*
ERBB2	*PIK3CA*
ERBB3	*SF3B1*
ESR1	*TP53*

- 12 genes
- 76 amplicons
- >150 hotspots
- CNVs: *CCND1*, *ERBB2*, *FGFR1*
- Amplia cobertura de *TP53*

12 GENES

2.4 OncoProfile Liquid LUNG 12

Our test is capable of evaluating 12 genes with proven clinical utility in cell-free tumor DNA (ctDNA) present in blood plasma.

Our test provides patients with relevant results regarding: tumor heterogeneity, detection of treatment-resistant clones, and detection of recurrence earlier than imaging tests.

Genes		Fusion Genes
ALK	*NRAS*	*ALK*
BRAF	*PIK3CA*	*ROS1*
EGFR	*RET*	*RET*
ERBB2	*ROS1*	
KRAS	*TP53*	
MAP2K1		
MET		

3. HEREDITARY CANCER SYNDROME

3.1 Inherit-Gene Cancer Test 200+

3.2 Inherit-Gene Cancer Test 39

3. HEREDITARY CANCER SYNDROME

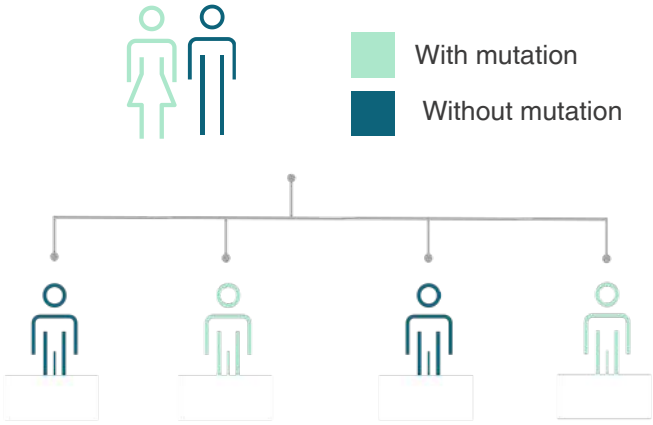
BETWEEN 10-15% OF CANCERS ARE DUE TO INHERITED MUTATIONS

Germline mutations are rare, but when present they can significantly increase the likelihood of developing cancer.

The presence of the mutation does not mean that cancer will develop, but knowing our risk helps us make early decisions:

- **It allows you to begin screening processes such as mammograms or colonoscopies much earlier than the general population.**
- **Take preventive measures (if recommended).**
- **It helps other members of your family know if they may be at risk.**

AUTOSOMAL DOMINANT INHERITANCE MODEL



Detection	SNV, Indels
Type of samples	Saliva, blood
Type of mutation	Germline mutations

+ 200 GENES

3.1 Inherit-Gene Cancer Test 200+

Our panel offers average coverage >100X for more than 200 genes related to hereditary cancer syndromes.

Our panel includes:

- Genes recognized by the **CDC** (Center for Disease Control and Prevention) as important for public health.
- **BRCA2, BRCA1, PALB2, TP53, CDH1, STK11, PTEN**, and those in which pathogenic genetic variants have been identified that are associated with risks that we consider high; therefore, these genes are commonly referred to as High Penetrance Genes.
- Genes whose pathogenic variants are associated with a multitude of cancer types, such as **PTEN and TP53.**

COMPLETE LIST OF GENES:

ABRAXAS1, ACD, ACVRL1, AIP, ALK, ANKRD26, APC, AR, ARAF, ATM, ATR, ATRIP, AXIN2, BARD1, BLM, BMPR1A, BRAF, BRCA1, BRCA2, BRIP1, BUB1B, CBL, CD70, CD82, CDC73, CDH1, CDK4, CDKN1B, CDKN1C, CDKN2A, CDKN2C, CEBPA, CEP57, CFTR, CHEK2, CTC, CTNNA1, CTRC, CYLD, DDB1, DDB2, DDX41, DICER1, DIS3L2, DKC1, DLEC1, DLST, DOCK8, EFL1, EGFR, ELAC2, ELANE, ENG, EPCAM, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6, ERCC8, ETV6, EXO1, EXT1, EXT2, EZH2, FAM111B, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FAS, FH, FLCN, GALNT12, GATA1, GATA2, GBA1, GEN1, GDNF, GPC3, GREM1, HABP2, HAX1, HNF1A, HOXB13, HRAS, IKZF1, ITK, KIF1B, KIT, KLLN, KITLG, KRAS, LIG4, LYST, LZTR1, MAD2L2, MAP2K1, MAP2K2, MAX, MBD4, MCIR, MDH2, MEN1, MET, MITF, MLH1, MLH3, MN1, MNX1, MRE11A, MSH2, MSH3, MSH6, MSR1, MUTYH, MXI1, NAF1, NBN, NF1, NF2, NHP2, NOP10, NRAS, NSD1, NSUN2, NTHL1, PALB2, PRNA, PAX5, PDGFB, PDGFRA, PHOX2B, PIK3CA, PMS1, PMS2, POLD1, POLE, POLH, POT1, PPM1D, PRF1, PRKAR1A, PRSS1, PRSS2, PTCH1, PTCH2, PTEN, PTPN11, RAD50, RAD51, RAD51B, RAD51C, RAD51D, RAF1, RASA1, RASA2, RB1, RECQL, RECQL2, RECQL4, REST, RET, RHBDF2, RIT1, RNASEL, RNF43, RPL11, RPL15, RPL23, RPL26, RPL27, RPL31, RPL35A, RPL36, RPL5, RPS10, RPS15, RPS17, RPS19, RPS20, RPS24, RPS26, RPS27, RPS27A, RPS28, RPS29, RPS7, RRAS, RTEL, RUNX1, SAMD9, SAMD9L, SBDS, SDHA, SDHAF2,SDHB, SDHC,SDHD, SH2B3,SH2D1A, SHOC2, SLC25A11, SLX4, SMAD4, SMARCA4, MARCB1, SMARCE1, SOS1, SOS2, SPINK1, SPRED1, SRP72, STAT3, STK11, STN1,SUFU, TERC,TERF2,TERT, TGFBR2,TINF2, TMEM127, TP53, TSC1, TSC2, TSHR, TSR2, UBE2T, VHL, WAS, WRAP53, WRN, WT1, XPA,XPC,XRCC2, XRCC

39 GENES

3.2 Inherit-Gene Cancer Test 39

Our panel offers average coverage >**100X for 39 genes related to hereditary cancer syndromes.**

Our panel includes:

Genes recognized by the **CDC** (Center for Disease Control and Prevention) as important for public health.

BRCA2, BRCA1, PALB2, TP53, CDH1, STK11, PTEN, and those in which pathogenic genetic variants have been identified that are associated with risks that we consider high; therefore, these genes are commonly referred to as High Penetrance Genes.

Genes whose pathogenic variants are associated with a multitude of cancer types, such as **PTEN and TP53.**

COMPLETE LIST OF GENES:
APC, ATM, AXIN2, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CDK4, CDKN2A (p16INK4a), CDKN2A (P14arf), CHEK2, DICER1, EPCAM, GREM1, GALNT12, HOXB13, MEN1, MITF, MLH1, MSH2, MSH6, MSH3, MUTYH, NBN, NTHL1, PALB2, PMS2, POLD1, POLE, PTEN, RAD51C, RAD51D, RNF43, SMAD4, SMARCA4, STK11, TP53, VHL.

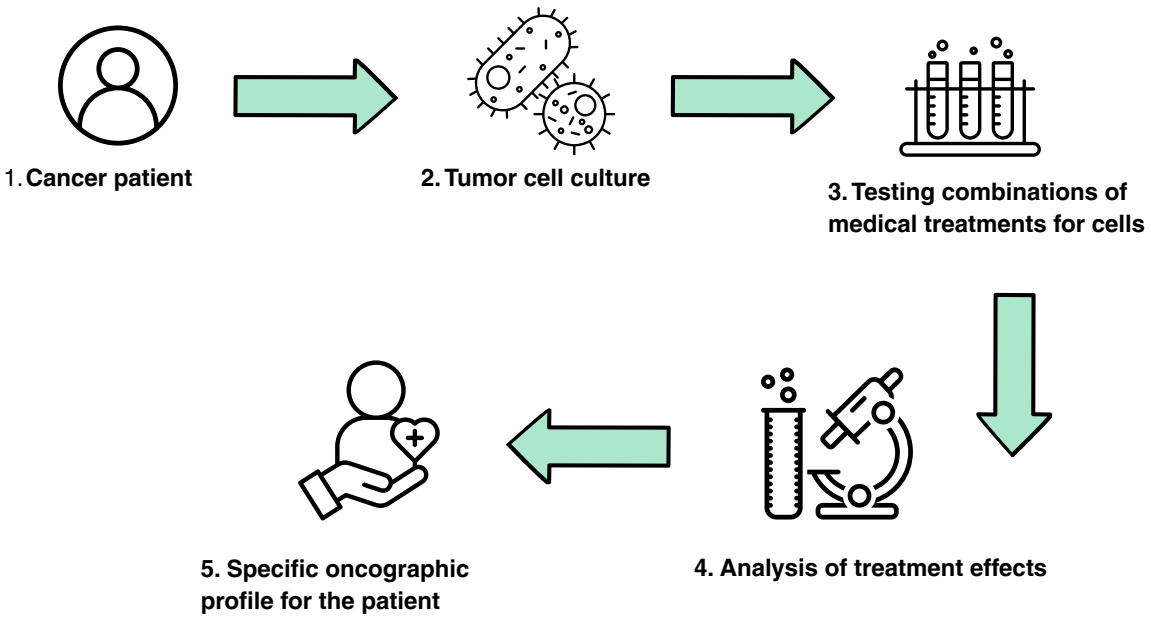
5. EX-VIVO TEST

4. EX-VIVO TEST:

This is an innovative cell culture technique that uses the patient's own cells to determine sensitivity to chemotherapy. Approved by the EU.

At Oncodynamics, we perform innovative personalized medicine tests that identify the most effective chemotherapy treatment for a patient with metastatic colorectal cancer (mCRC) before administering it.

Using a sample of the patient's own tumor tissue, we perform an ex vivo functional analysis that evaluates the sensitivity of cancer cells to different chemotherapy drugs.
This technology helps oncologists and patients make more informed therapeutic decisions, increasing the chances of treatment success and reducing exposure to unnecessary side effects.



5. SPECIALIZED SERVICES

5.1 DETECTION OF SPECIFIC MUTATIONS

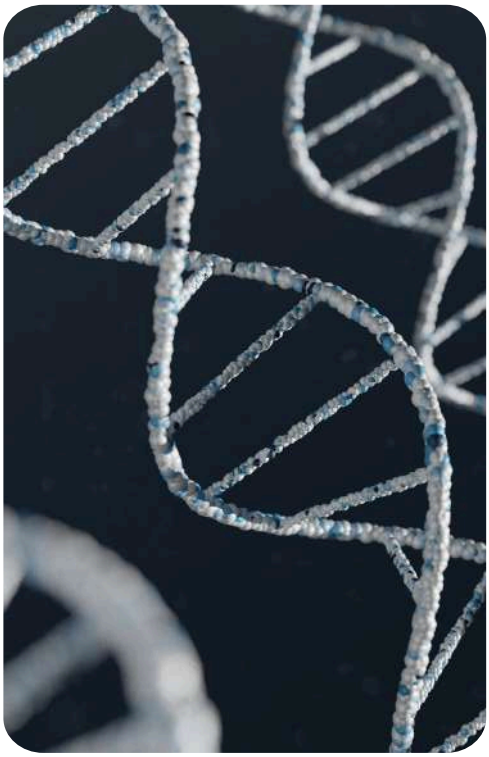
Individual detection of specific mutations allows for greater diagnostic flexibility and can be extremely useful in cases where a previously suspected or known point mutation needs to be confirmed, or when the clinical context requires a more targeted approach.

Thanks to our advanced sequencing technologies, real-time and digital PCR, and other molecular methodologies, we offer highly sensitive and specific mutation detection in a variety of cancer types, both in tissue biopsies and liquid biopsies. This allows for accurate and personalized characterization of the tumor's genomic profile.

5.2 DETECTION OF GENOMIC INSTABILITY

We identify key markers of genomic instability, such as microsatellite instability (MSI) and tumor mutational burden (TMB), which are fundamental indicators of a tumor's ability to mutate and evolve.

Through comprehensive reports, Oncodynamics translates the complex dynamics of cancer into clear, actionable information, providing oncologists with a holistic view of the molecular, genomic, metabolic, and tumor microenvironment profile.



5.3 PHARMACOGENOMICS

Our tests enable us to identify patients with genetic variants that affect how they metabolize certain antineoplastic agents, making it easier for oncologists to tailor treatment to each individual patient before toxic effects occur.

This strategy is based on pharmacogenomics, with a focus on **genetic biomarkers whose clinical relevance has been validated in prospective studies and recognized in current medical oncology guidelines.**

- Targeted at high-impact chemotherapeutic drugs
- Based on clinically relevant genetic polymorphisms

Through comprehensive reports, OncoDynamics translates the complex dynamics of cancer into clear, actionable information, offering oncologists a holistic view of the molecular, genomic, metabolic, and tumor microenvironment profiles.

Pruebas qPCR	Genes / Variantes	Aplicación clínica
gb PHARM DPYD	DPYD *2A, *13, HapB3, c.2846A>T	Toxicidad a fluoropirimidinas (5-FU, capecitabina)
gb PHARM TPMT	TPMT *2, *3A, *3B, *3C	Ajuste de dosis de tiopurinas
gb PHARM CYP2C19	CYP2C19 *2, *3, *17	Metabolismo de clopidogrel, IBPs
gb PHARM UGT1A1	UGT1A1 *36, *1, *28, *37	Toxicidad con irinotecán, ictericia
gb PHARM Warfarin	CYP2C9 *2, *3; VKORC1 -1639G>A	Dosis segura de warfarina

OncoDynamics

**“Precision that transforms lives.
Personalization that fights cancer.“**

WHERE TO FIND US

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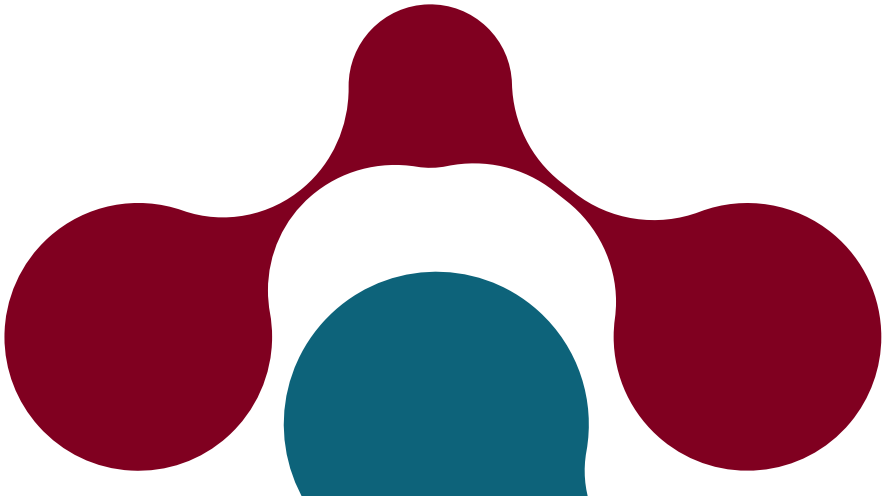
México
Carretera Estatal No 431 km 1.98 Europark II, Nave 15, CP76246 El Marqués, Querétaro, México

www.oncodynamics.bio



OncoDynamics